

# AUDIT REPORT

Hostname: Core  
Config file name: core-router.txt  
Config hash: 4f23b6ce687a76c7c82c1e07a0cb382bf245383d  
Vendor: cisco  
OS: ios  
Facility layer: core  
L3 protocols: ipv4,ipv6  
Enabled functions: ospf ipv4,eigrp named,bgp,acl created  
Date: 18/05/2020\_09:49

## SUCCESS STATISTICS

Weighted score coefficient: 96 out of 100  
Successful checks: 93.9%  
Unsuccessful checks: 6.1%

Total number of relevant started checks: 147

Successful checks: 138  
Unsuccessful 'Critical': 4  
Unsuccessful 'High': 0  
Unsuccessful 'Medium': 4  
Unsuccessful 'Low': 1  
Unsuccessful 'Notice': 0

## Authentication, Authorization, Accounting

No.	Name	Severity	Skipped	Cannot determine search/fix	Status
1	AAA new model/ Enabled AAA	High	False	False	Successful ✓
<b>Right configuration setting found in:</b> aaa new-model					
2	AAA server set	High	False	False	Successful ✓
<b>Right configuration setting found in:</b> radius server RADIUS_SERVER address ipv4 192.168.60.11 auth-port 1645 acct-port 1646 key RadKey1					
3	AAA server group	High	False	False	Successful ✓
<b>Right configuration setting found in:</b> aaa group server radius RADIUS_SERVER server name RADIUS_SERVER					
4	AAA authentication login	High	False	False	Successful ✓
<b>Right configuration setting found in:</b> aaa authentication login default group RADIUS_SERVER local enable					
5	AAA authentication login fallback	High	False	False	Successful ✓
<b>Right configuration setting found in:</b> aaa authentication login default group RADIUS_SERVER local enable					

6	AAA authentication login only local disabled	High	False	False	Successful ✓
7	AAA authentication login none disabled	Critical	False	False	Successful ✓
8	AAA authentication "enable"	Medium	False	False	Successful ✓
<b>Right configuration setting found in:</b> aaa authentication enable default group RADIUS_SERVER enable					
9	AAA authentication "enable" fallback	Medium	False	False	Successful ✓
<b>Right configuration setting found in:</b> aaa authentication enable default group RADIUS_SERVER enable					
10	AAA authentication "enable" only local disabled	Medium	False	False	Successful ✓
11	AAA authentication "enable" none disabled	High	False	False	Successful ✓
12	AAA authorization "exec"	High	False	False	Successful ✓
<b>Right configuration setting found in:</b> aaa authorization exec default group RADIUS_SERVER local if-authenticated					
13	AAA authorization "exec" fallback	High	False	False	Successful ✓
<b>Right configuration setting found in:</b> aaa authorization exec default group RADIUS_SERVER local if-authenticated					
14	AAA authorization "exec" only local disabled	High	False	False	Successful ✓
15	AAA authorization "exec" none disabled	Critical	False	False	Successful ✓
16	AAA accounting "connection"	High	False	False	Successful ✓
<b>Right configuration setting found in:</b> aaa accounting connection default start-stop group RADIUS_SERVER					
17	AAA accounting "connection" none disabled	High	False	False	Successful ✓
18	AAA accounting "exec"	High	False	False	Successful ✓
<b>Right configuration setting found in:</b> aaa accounting exec default start-stop group RADIUS_SERVER					
19	AAA accounting "exec" none disabled	High	False	False	Successful ✓
20	AAA source interface	Medium	False	False	Successful ✓
<b>Right configuration setting found in:</b> ip radius source-interface Loopback0					
21	AAA authentication max attempts less or equal to 5	High	False	False	Successful ✓

## Access to device

No.	Name	Severity	Skipped	Cannot determine Status search/fix	
1	Exec timeout <=5 minutes	Medium	False	False	Successful ✓
<b>Right configuration setting found in:</b> line con 0 exec-timeout 5 0 line vty 0 4 exec-timeout 5 0					
2	AUX connection input disabled	High	False	False	Successful ✓
3	AUX no execution set	High	False	False	Successful ✓
<b>Right configuration setting found in:</b> line aux 0 no exec					
4	Remote output connections disabled	Medium	False	False	Successful ✓

**Right configuration setting found in:**

line con 0  
transport output none  
line aux 0  
transport output none  
line vty 0 4  
transport output none

5	Local user database with encrypted password	Critical	False	False	Successful ✓
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**Right configuration setting found in:**

username admin secret 5 \$1\$720u\$ep.dW.7w9aUAAeGoX.YoE.

6	Local user database with plaintext password disabled	Critical	False	False	Successful ✓
7	Enable password encrypted	Critical	False	False	Successful ✓

**Right configuration setting found in:**

enable secret 5 \$1\$6Y11\$aATgfOC5l1wwORXfQmG1D0

8	Enable password plaintext disabled	Critical	False	False	Successful ✓
9	Local login to virtual terminal disabled	Critical	False	False	Successful ✓
10	Restrict login to device - IPv4 ACL	Critical	False	False	Successful ✓

**Right configuration setting found in:**

line vty 0 4  
access-class IPV4\_VTY\_ACL in

11	ACL specified for VTY access is created	Critical	False	False	Error ✗
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**Comment:**

Cannot be fixed automatically!

**Fix notice:**

Cannot be fixed automatically! If search is not successful create ACL, which permits only needed end stations for managing devices with these commands:

ip access-list standard <acl name>  
remark Permitting managemnt device  
permit <ip address> <wildcard mask>

12	Log login to device on failure	High	False	False	Successful ✓
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**Right configuration setting found in:**

login on-failure log

13	Log login to device on success	Medium	False	False	Successful ✓
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**Right configuration setting found in:**

login on-success log

14	Login quiet mode	Medium	False	False	Successful ✓
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**Right configuration setting found in:**

login quiet-mode access-class IPV4\_VTY\_ACL

15	ACL exists for specified login quiet mode	Medium	False	False	Error ✗
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**Comment:**

Cannot be fixed automatically!

**Fix notice:**

Cannot be fixed automatically! If search is not successful create ACL, which permits only needed end stations for managing devices with these commands:

ip access-list standard <acl name>  
remark Permitting managemnt device  
permit <ip address> <wildcard mask>

16	One user change config at time	High	False	False	Successful ✓
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**Right configuration setting found in:**

configuration mode exclusive

17	Legal banner MOTD	Low	False	False	Successful ✓
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**Right configuration setting found in:**


banner motd ^C Unauthorized access will be prosecuted!! ^C

18	Legal banner exec	Low	False	False	Successful ✓
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**Right configuration setting found in:**

banner exec ^C Unauthorized access will be prosecuted!! ^C


banner login ^C Unauthorized access will be prosecuted!! ^C

19	Legal banner login	Low	False	False	Successful 
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**Right configuration setting found in:**

banner login ^C Unauthorized access will be prosecuted!! ^C

banner motd ^C Unauthorized access will be prosecuted!! ^C

20	Session timeout	Medium	False	False	Successful 
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**Right configuration setting found in:**

line con 0

session-timeout 30

line aux 0

session-timeout 30

line vty 0 4

session-timeout 30

21	AUX exec timeout one second	High	False	False	Successful 
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**Right configuration setting found in:**

line aux 0


exec-timeout 0 1

22	Restrict login to device - IPv6 ACL	Critical	False	False	Successful 
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**Right configuration setting found in:**

line vty 0 4

ipv6 access-class IPV6\_VTY\_ACL in

23	ACL IPv6 specified for VTY access is created	Critical	False	False	Error 
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**Comment:**

Cannot be fixed automatically!


**Fix notice:**

Cannot be fixed automatically! If search is not successful create ACL, which permits only needed end stations for managing devices with these commands:

ipv6 access-list <acl name>

remark Permitting managemnt device


permit ip <ip address> <wildcard mask> any

24	Login DOS block for	High	False	False	Successful 
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**Right configuration setting found in:**

login block-for 120 attempts 3 within 30

## SSH

No.	Name	Severity	Skipped	Cannot determine Status search/fix	
1	SSH enable on management connection	Critical	False	False	Successful 

**Right configuration setting found in:**


line vty 0 4

transport input ssh

2	SSH version 2	Critical	False	False	Successful 
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**Right configuration setting found in:**


ip ssh version 2

3	SSH timeout	Medium	False	False	Successful 
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**Right configuration setting found in:**


ip ssh time-out 30

4	SSH max 3 retries	Medium	False	False	Successful 
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5	SSH source interface	High	False	False	Successful 
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**Right configuration setting found in:**

ip ssh source-interface Loopback0

6	SSH not default port	High	False	False	Successful 
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**Right configuration setting found in:**

ip ssh port 2223 rotary 1

7	SSH not default port applied	High	False	False	Successful ✓
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**Right configuration setting found in:**

line vty 0 4

rotary 1

## Device identification

No.	Name	Severity	Skipped	Cannot determine Status search/fix
1	Hostname set	Low	False	False Successful ✓
<b>Comment:</b> Cannot be fixed automatically!				
<b>Right configuration setting found in:</b> hostname Core				
2	Domain name set	Low	False	False Successful ✓
<b>Right configuration setting found in:</b> ip domain name thesis-test.cz				
3	All interfaces have description	Low	False	False Error ✗
<b>Comment:</b> Cannot be fixed automatically!				
<b>Right configuration setting found in:</b> interface Ethernet0/0 description WAN_PORT				
<b>Found port(s) with error:</b> Loopback0 Ethernet0/1 Ethernet0/2 Ethernet0/3 Ethernet1/0 Ethernet1/1 Ethernet1/2 Ethernet1/3 Serial2/0 Serial2/1 Serial2/2 Serial2/3 Serial3/0 Serial3/1 Serial3/2 Serial3/3				
<b>Fix notice:</b> Set interface description with command: interface <interface name> description <description of interface>				
<b>Fix ignore comment:</b> Fixing commands suppressed due to manual need of manual change and name determination.				

## SNMP

No.	Name	Severity	Skipped	Cannot determine Status search/fix
1	SNMP v2 write disabled	Critical	False	False Successful ✓
2	SNMP v2 read without ACL disabled	Critical	False	False Successful ✓
3	SNMP v2 read with ACL disabled	Critical	False	False Successful ✓
4	SNMP v1 trap host disabled	Critical	False	False Successful ✓
5	SNMP v2 trap host disabled	Critical	False	False Successful ✓

6	SNMP v3 read [authnopriv noauth authpriv without ACL] or write disabled	Critical	False	False	Successful ✓
7	SNMP v3 read authpriv with ACL enabled	Critical	False	False	Successful ✓
<b>Right configuration setting found in:</b> snmp-server group SNMP_V3_GRP v3 priv read READVIEWv3 access SNMP_V3					
8	SNMP v3 read authpriv with IPv6 ACL enabled	Critical	False	False	Successful ✓
<b>Right configuration setting found in:</b> snmp-server group SNMP_V3_GRP_IPV6 v3 priv read READVIEWv3 access ipv6 SNMP_V3_ACL6					
9	SNMP user v1 v2c or v3 [noauth authnopriv no sha no aes without ACL] disabled	Critical	False	False	Successful ✓
10	SNMP trap source interface	High	False	False	Successful ✓
<b>Right configuration setting found in:</b> snmp-server trap-source Loopback0					
11	SNMP server location	High	False	False	Successful ✓
<b>Right configuration setting found in:</b> snmp-server location GNS3LAB					
12	SNMP v3 traps priv	Medium	False	False	Successful ✓
<b>Right configuration setting found in:</b> snmp-server host 192.168.60.11 version 3 priv SNMPv3USER					
13	SNMP traps v3 read [authnopriv noauth] or v1 v2 disabled	Critical	False	False	Successful ✓
14	SNMP traps enabled	Medium	False	False	Successful ✓
<b>Right configuration setting found in:</b> snmp-server enable traps snmp authentication linkdown linkup coldstart warmstart					
15	ACL is created for SNMPv3	Critical	False	False	Error ✗
<b>Comment:</b> Cannot be fixed automatically!					
<b>Fix notice:</b> Cannot be fixed automatically! If search is not successful create ACL, which permits only needed end stations for receiving SNMP with these commands: ip access-list standard <acl name> remark Permitting SNMP permit <ip address> <wildcard mask>					
16	ACL IPv6 is created for SNMPv3	Critical	False	False	Error ✗
<b>Comment:</b> Cannot be fixed automatically!					
<b>Fix notice:</b> Cannot be fixed automatically! If search is not successful create ACL, which permits only needed end stations for receiving SNMP with these commands: ipv6 access-list <acl name> remark Permitting managemnt device permit ip <ip address> <wildcard mask> any					
17	SNMP interface index persist enabled globally	High	False	False	Successful ✓
<b>Right configuration setting found in:</b> snmp-server ifindex persist					
18	SNMP interface index persist enabled per interface	High	False	False	Matched by equivalent ✓
<b>Comment:</b> Module was marked as matched by equivalent by module 05_20_snmp_ifindex_persist_globally.yaml					

## Syslog

No.	Name	Severity	Skipped	Cannot determine Status search/fix
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1	Syslog server enabled	High	False	False	Successful ✓
<b>Right configuration setting found in:</b> logging host 192.168.60.11					
2	Syslog server IPv6 enabled	High	False	False	Not relevant ✓
<b>Comment:</b> Module 06_02_syslog_server_ipv6.yaml configured to run after 06_01_syslog_server.yaml with status error but that module has not run yet with specified cmd_match_status, 06_02_syslog_server_ipv6.yaml will not run					
3	Syslog source interface	Medium	False	False	Successful ✓
<b>Right configuration setting found in:</b> logging source-interface Loopback0					
4	Syslog format	Medium	False	False	Successful ✓
<b>Right configuration setting found in:</b> service timestamps log datetime msec					
5	Syslog critical alerts to console	Medium	False	False	Successful ✓
<b>Right configuration setting found in:</b> logging console critical					
6	Syslog send informational traps	High	False	False	Successful ✓
7	Syslog buffer set with severity	High	False	False	Successful ✓
<b>Right configuration setting found in:</b> logging buffered 40960 informational					
8	Syslog local backup	High	False	False	Successful ✓
<b>Right configuration setting found in:</b> logging persistent url unix:/					
9	Syslog sequence numbers added	Medium	False	False	Successful ✓
<b>Right configuration setting found in:</b> service sequence-numbers					

## NTP

No.	Name	Severity	Skipped	Cannot determine Status search/fix
1	NTP server set	High	False	False Successful ✓
<b>Right configuration setting found in:</b> ntp server 192.168.60.11				
2	NTP source interface	Medium	False	False Successful ✓
<b>Right configuration setting found in:</b> ntp source Loopback0				
3	NTP authentication key	High	False	False Successful ✓
<b>Right configuration setting found in:</b> ntp authentication-key 1 md5 06081B317C4F1A0A121343595F 7				
4	NTP trusted key	High	False	False Successful ✓
<b>Right configuration setting found in:</b> ntp trusted-key 1				
5	NTP authenticate	High	False	False Successful ✓
<b>Right configuration setting found in:</b> ntp authenticate				

## High load

No.	Name	Severity	Skipped	Cannot determine Status search/fix
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1	SNMP traps for CPU load	Medium	False	False	Successful ✓
<b>Right configuration setting found in:</b> snmp-server enable traps cpu threshold					
2	Threshold for CPU load	Medium	False	False	Successful ✓
<b>Right configuration setting found in:</b> process cpu threshold type total rising 70 interval 5					
3	Statistics entry for CPU load	Low	False	False	Successful ✓
<b>Right configuration setting found in:</b> process cpu statistics limit entry-percentage 70					
4	Reserve memory for critical notification	Medium	False	False	Successful ✓
<b>Right configuration setting found in:</b> memory reserve critical 1000					
5	Minimum CPU memory notification	Medium	False	False	Successful ✓
<b>Right configuration setting found in:</b> memory free low-watermark processor 2000					
6	Minimum IO memory notification	Medium	False	False	Error ✗
<b>Generated fix:</b> memory free low-watermark io 2000					

## Network Mapping

No.	Name	Severity	Skipped	Cannot determine Status search/fix	
1	CDP globally disabled	Critical	False	False	Successful ✓
<b>Right configuration setting found in:</b> no cdp run					
2	CDP disabled on interface(s)	Critical	False	False	Matched by equivalent ✓
<b>Comment:</b> Module was marked as matched by equivalent by module 11_01_cdp_run_disabled.yaml					
3	LLDP globally disabled	Critical	False	False	Successful ✓
4	LLDP receive disabled on interface(s)	Critical	False	False	Not relevant ✓
<b>Comment:</b> Module 11_04_lldp_receive.yaml configured to run after 11_03_lldp_run_disabled.yaml with status error but that module has not run yet with specified cmd_match_status, 11_04_lldp_receive.yaml will not run					
5	LLDP transmit disabled on interface(s)	Critical	False	False	Not relevant ✓
<b>Comment:</b> Module 11_05_lldp_transmit.yaml configured to run after 11_03_lldp_run_disabled.yaml with status error but that module has not run yet with specified cmd_match_status, 11_05_lldp_transmit.yaml will not run					
6	Proxy ARP disabled on interface(s)	Critical	False	False	Successful ✓



**Right configuration setting found in:**

```
interface Loopback0
no ip proxy-arp
interface Ethernet0/0
no ip proxy-arp
interface Ethernet0/1
no ip proxy-arp
interface Ethernet0/2
no ip proxy-arp
interface Ethernet0/3
no ip proxy-arp
interface Ethernet1/0
no ip proxy-arp
interface Ethernet1/1
no ip proxy-arp
interface Ethernet1/2
no ip proxy-arp
interface Ethernet1/3
no ip proxy-arp
interface Serial2/0
no ip proxy-arp
interface Serial2/1
no ip proxy-arp
interface Serial2/2
no ip proxy-arp
interface Serial2/3
no ip proxy-arp
interface Serial3/0
no ip proxy-arp
interface Serial3/1
no ip proxy-arp
interface Serial3/2
no ip proxy-arp
interface Serial3/3
no ip proxy-arp
```

7	ICMP Unreachable disabled on interface(s)	High	False	False	Successful ✓
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**Right configuration setting found in:**

```
interface Loopback0
no ip unreachable
interface Ethernet0/0
no ip unreachable
interface Ethernet0/1
no ip unreachable
interface Ethernet0/2
no ip unreachable
interface Ethernet0/3
no ip unreachable
interface Ethernet1/0
no ip unreachable
interface Ethernet1/1
no ip unreachable
interface Ethernet1/2
no ip unreachable
interface Ethernet1/3
no ip unreachable
interface Serial2/0
no ip unreachable
interface Serial2/1
no ip unreachable
interface Serial2/2
no ip unreachable
interface Serial2/3
no ip unreachable
interface Serial3/0
no ip unreachable
interface Serial3/1
no ip unreachable
interface Serial3/2
no ip unreachable
interface Serial3/3
no ip unreachable
```

8	ICMPv6 Unreachable disabled on interface(s)	High	False	False	Successful ✓
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Right configuration setting found in:

interface Loopback0  
no ipv6 unreachable  
interface Ethernet0/0  
no ipv6 unreachable  
interface Ethernet0/1  
no ipv6 unreachable  
interface Ethernet0/2  
no ipv6 unreachable  
interface Ethernet0/3  
no ipv6 unreachable  
interface Ethernet1/0  
no ipv6 unreachable  
interface Ethernet1/1  
no ipv6 unreachable  
interface Ethernet1/2  
no ipv6 unreachable  
interface Ethernet1/3  
no ipv6 unreachable  
interface Serial2/0  
no ipv6 unreachable  
interface Serial2/1  
no ipv6 unreachable  
interface Serial2/2  
no ipv6 unreachable  
interface Serial2/3  
no ipv6 unreachable  
interface Serial3/0  
no ipv6 unreachable  
interface Serial3/1  
no ipv6 unreachable  
interface Serial3/2  
no ipv6 unreachable  
interface Serial3/3  
no ipv6 unreachable

9	ICMP Mask Reply disabled on interface(s)	High	False	False	Successful ✓
10	Directed broadcast disabled on interface(s)	Critical	False	False	Successful ✓
11	ICMP Redirects disabled on interface(s)	High	False	False	Successful ✓

**Right configuration setting found in:**

```
interface Loopback0
no ip redirects
interface Ethernet0/0
no ip redirects
interface Ethernet0/1
no ip redirects
interface Ethernet0/2
no ip redirects
interface Ethernet0/3
no ip redirects
interface Ethernet1/0
no ip redirects
interface Ethernet1/1
no ip redirects
interface Ethernet1/2
no ip redirects
interface Ethernet1/3
no ip redirects
interface Serial2/0
no ip redirects
interface Serial2/1
no ip redirects
interface Serial2/2
no ip redirects
interface Serial2/3
no ip redirects
interface Serial3/0
no ip redirects
interface Serial3/1
no ip redirects
interface Serial3/2
no ip redirects
interface Serial3/3
no ip redirects
```

## Routing

No.	Name	Severity	Skipped	Cannot determine search/fix	Status
1	OSPF IPv4 Router ID	Medium	False	False	Successful ✓
<b>Right configuration setting found in:</b> router ospf 1 router-id 10.10.10.1					
2	OSPF IPv6 Router ID	Medium	True	False	Not relevant ✓
<b>Comment:</b> Skipped, required function ospf ipv6 not configured on device. Everything is OK.					
3	OSPFv3 Address Family General Router ID	Medium	True	False	Not relevant ✓
<b>Comment:</b> Skipped, required function ospfv3 not configured on device. Everything is OK.					
4	OSPFv3 Address Family IPv4 Router ID	Medium	True	False	Not relevant ✓
<b>Comment:</b> Skipped, required function ospfv3 not configured on device. Everything is OK.					
5	OSPFv3 Address Family IPv6 Router ID	Medium	True	False	Not relevant ✓
<b>Comment:</b> Skipped, required function ospfv3 not configured on device. Everything is OK.					
6	EIGRP IPv4 Router ID	Medium	True	False	Not relevant ✓
<b>Comment:</b> Skipped, required function eigrp ipv4 not configured on device. Everything is OK.					
7	EIGRP IPv6 Router ID	Medium	True	False	Not relevant ✓

**Comment:**

Skipped, required function eigrp ipv6 not configured on device. Everything is OK.

8	EIGRP Named IPv4 Router ID	Medium	False	False	Successful ✓
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**Right configuration setting found in:**

```
router eigrp EIGRP_NAMED
address-family ipv4 unicast autonomous-system 1
eigrp router-id 10.10.10.1
```

9	EIGRP Named IPv6 Router ID	Medium	False	False	Successful ✓
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**Right configuration setting found in:**

```
router eigrp EIGRP_NAMED
address-family ipv6 unicast autonomous-system 1
eigrp router-id 10.10.10.1
```

10	BGP Router ID	Medium	False	False	Successful ✓
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**Right configuration setting found in:**

```
router bgp 1211
bgp router-id 3.3.3.3
```

11	OSPF IPv4 Log adjacency changes	Medium	False	False	Successful ✓
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12	OSPF IPv6 Log adjacency changes	Medium	True	False	Not relevant ✓
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**Comment:**

Skipped, required function ospf ipv6 not configured on device. Everything is OK.

13	OSPFv3 Address Family IPv6 Log adjacency changes	Medium	True	False	Not relevant ✓
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**Comment:**

Skipped, required function ospfv3 not configured on device. Everything is OK.

14	OSPFv3 Address Family IPv4 Log adjacency changes	Medium	True	False	Not relevant ✓
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**Comment:**

Skipped, required function ospfv3 not configured on device. Everything is OK.

15	OSPFv3 Address Family IPv6 Log adjacency changes	Medium	True	False	Not relevant ✓
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**Comment:**

Skipped, required function ospfv3 not configured on device. Everything is OK.

16	EIGRP IPv4 Log neighbor changes	Medium	True	False	Not relevant ✓
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**Comment:**

Skipped, required function eigrp ipv4 not configured on device. Everything is OK.

17	EIGRP IPv6 Log neighbor changes	Medium	True	False	Not relevant ✓
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**Comment:**

Skipped, required function eigrp ipv6 not configured on device. Everything is OK.

18	EIGRP Named IPv4 Log neighbor changes	Medium	False	False	Successful ✓
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19	EIGRP Named IPv6 Log neighbor changes	Medium	False	False	Successful ✓
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20	BGP Log neighbor changes	Medium	False	False	Successful ✓
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**Right configuration setting found in:**

```
router bgp 1211
bgp log-neighbor-changes
```

21	RIP auto summary disabled	High	True	False	Not relevant ✓
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**Comment:**

Skipped, required function rip not configured on device. Everything is OK.

22	EIGRP IPv4 Auto summary disabled	High	True	False	Not relevant ✓
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**Comment:**

Skipped, required function eigrp ipv4 not configured on device. Everything is OK.

23	EIGRP IPv6 Auto summary disabled	High	True	False	Not relevant ✓
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**Comment:**

Skipped, required function eigrp ipv6 not configured on device. Everything is OK.

24	EIGRP Named IPv4 Auto summary disabled	High	False	False	Successful ✓
25	EIGRP Named IPv6 Auto summary disabled	High	False	False	Successful ✓
26	BGP Auto summary disabled	High	False	False	Successful ✓
27	BGP Multihop disabled or TTL security used	High	False	False	Successful ✓
28	IP Source routing (IP Options) disabled	Critical	False	False	Successful ✓

## Filtering

No.	Name	Severity	Skipped	Cannot determine Status search/fix	
1	ACL filter specified for IPv4 addresses on WAN	Critical	False	False	Successful ✓
<b>Right configuration setting found in:</b> ip access-list extended IPV4_WAN_FILTER remark DENY RFC6890 and RFC8190 deny ip 0.0.0.0 0.255.255.255 any log-input deny ip 10.0.0.0 0.255.255.255 any log-input deny ip 100.64.0.0 0.63.255.255 any log-input deny ip 127.0.0.0 0.255.255.255 any log-input deny ip 169.254.0.0 0.0.255.255 any log-input deny ip 172.16.0.0 0.15.255.255 any log-input deny ip 192.0.0.0 0.0.0.7 any log-input deny ip 192.0.2.0 0.0.0.255 any log-input deny ip 192.18.0.0 0.1.255.255 any log-input deny ip 198.51.100.0 0.0.0.255 any log-input deny ip 192.168.0.0 0.0.255.255 any log-input deny ip 192.0.0.0 0.255.255.255 any log-input deny ip 203.0.113.0 0.0.0.255 any log-input deny ip 224.0.0.0 15.255.255.255 any log-input deny ip 240.0.0.0 15.255.255.255 any log-input permit ip any any					
2	ACL filter IPv4 applied on WAN interface	Critical	False	False	Successful ✓
<b>Right configuration setting found in:</b> interface Ethernet0/0 ip access-group IPV4_WAN_FILTER in					
3	ACL filter specified for IPv5 addresses on WAN	Critical	False	False	Successful ✓
<b>Right configuration setting found in:</b> ipv6 access-list IPV6_WAN_FILTER remark DENY RFC6890 and RFC8190 and RFC5156 deny ipv6 host ::1 any log-input deny ipv6 host :: any log-input deny ipv6 ::FFFF:0.0.0.0/96 any log-input deny ipv6 100::/64 any log-input deny ipv6 2001::/23 any log-input deny ipv6 2001::/32 any log-input deny ipv6 2001:2::/48 any log-input deny ipv6 2001:DB8::/32 any log-input deny ipv6 2001:10::/28 any log-input deny ipv6 2002::/16 any log-input deny ipv6 FC00::/7 any log-input deny ipv6 FF00::/8 any log-input remark DENY unknown IPv6 extended headers deny ipv6 any any log-input undetermined-transport permit ipv6 any any					
4	ACL filter IPv6 applied on WAN interface	Critical	False	False	Successful ✓

**Right configuration setting found in:**

interface Ethernet0/0

ipv6 traffic-filter IPV6\_WAN\_FILTER in

5	IP Options disabled	Critical	False	False	Successful ✓
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**Right configuration setting found in:**

ip options drop

6	ACL filter IPv6 unknown extended header	Critical	False	False	Successful ✓
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**Right configuration setting found in:**

ipv6 access-list IPV6\_WAN\_FILTER

remark DENY RFC6890 and RFC8190 and RFC5156

deny ipv6 host ::1 any log-input

deny ipv6 host :: any log-input

deny ipv6 ::FFFF:0.0.0.0/96 any log-input

deny ipv6 100::/64 any log-input

deny ipv6 2001::/23 any log-input

deny ipv6 2001::/32 any log-input

deny ipv6 2001:2::/48 any log-input

deny ipv6 2001:DB8::/32 any log-input

deny ipv6 2001:10::/28 any log-input

deny ipv6 2002::/16 any log-input

deny ipv6 FC00::/7 any log-input

deny ipv6 FF00::/8 any log-input

remark DENY unknown IPv6 extended headers

deny ipv6 any any log-input undetermined-transport

permit ipv6 any any

7	ACL filter IPv6 unknown extended header applied on WAN interface	Critical	False	False	Successful ✓
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**Right configuration setting found in:**

interface Ethernet0/0

ipv6 traffic-filter IPV6\_WAN\_FILTER in

## Other

No.	Name	Severity	Skipped	Cannot determine Status search/fix	
1	Servis PAD disabled (Packet assembler disassembler)	High	False	False	Successful ✓
<b>Right configuration setting found in:</b> no service pad					
2	BOOTP server disabled	High	False	False	Successful ✓
<b>Right configuration setting found in:</b> no ip bootp server					
3	Ident protocol disabled	High	False	False	Successful ✓
4	Finger protocol disabled	High	False	False	Successful ✓
5	HTTP server disabled	High	False	False	Successful ✓
6	HTTPS server disabled	High	False	False	Successful ✓
7	TCP small server disabled	High	False	False	Successful ✓
8	UDP small server disabled	High	False	False	Successful ✓
9	MOP protocol disabled	High	False	False	Successful ✓

**Right configuration setting found in:**

interface Ethernet0/0  
no mop enabled  
interface Ethernet0/1  
no mop enabled  
interface Ethernet0/2  
no mop enabled  
interface Ethernet0/3  
no mop enabled  
interface Ethernet1/0  
no mop enabled  
interface Ethernet1/1  
no mop enabled  
interface Ethernet1/2  
no mop enabled  
interface Ethernet1/3  
no mop enabled

10	IP domain lookup disabled	High	False	False	Successful ✓
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**Right configuration setting found in:**

no ip domain lookup

11	Gratuitous ARPs generation disabled	High	False	False	Successful ✓
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**Right configuration setting found in:**

no ip gratuitous-arps

12	Gratuitous ARPs reject enabled	High	False	False	Successful ✓
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**Right configuration setting found in:**

ip arp gratuitous none

13	Netflow is disabled	Notice	False	False	Successful ✓
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**Fix ignore comment:**

By default fix is ignored due to disablement of traffic monitoring. Consider whether port mirroring is necessary for monitoring

14	Netflow version 9 used	Medium	False	False	Not relevant ✓
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**Comment:**

Module 15\_14\_netflow\_version\_9.yaml configured to run after 15\_13\_netflow.yaml with status error but that module has not run yet with specified cmd\_match\_status, 15\_14\_netflow\_version\_9.yaml will not run

15	Netflow traffic analyze disabled on interface(s)	Notice	False	False	Not relevant ✓
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**Comment:**

Module 15\_15\_netflow\_interface.yaml configured to run after 15\_13\_netflow.yaml with status error but that module has not run yet with specified cmd\_match\_status, 15\_15\_netflow\_interface.yaml will not run

**Fix ignore comment:**

By default fix is ignored due to disablement of traffic monitoring. Consider whether port mirroring is necessary for monitoring

16	Port mirroring disabled on interface(s)	Notice	False	False	Successful ✓
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**Fix ignore comment:**

By default fix is ignored due to disablement of traffic monitoring. Consider whether port mirroring is necessary for monitoring

17	Set always "UP" Loopback interface with IP address	Medium	False	False	Successful ✓
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**Right configuration setting found in:**

interface Loopback0  
ip address 10.10.10.20 255.255.255.255  
no ip redirects  
no ip unreachableables  
no ip proxy-arp  
ip ospf network point-to-point  
no ipv6 unreachableables  
snmp ifindex persist

18	Notification on memory IO leak/overflow	Medium	False	False	Error ✗
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**Generated fix:**

exception memory ignore overflow io

19	Notification on memory CPU leak/overflow	Medium	False	False	Error ❌
<b>Generated fix:</b> exception memory ignore overflow processor					
20	Network boot disabled	Medium	False	False	Successful ✔️
21	Network config load disabled	Medium	False	False	Successful ✔️
22	SCP server enabled	Medium	False	False	Successful ✔️
<b>Right configuration setting found in:</b> ip scp server enable					
23	SCP alias copy instead of TFTP	High	False	False	Successful ✔️
24	Protection of configuration deletion	High	False	False	Successful ✔️
<b>Right configuration setting found in:</b> secure boot-config					
25	Archive and log config changes	Medium	False	False	Successful ✔️
<b>Right configuration setting found in:</b> archive log config logging enable notify syslog contenttype plaintext hidekeys path unix: maximum 5 time-period 60 memory reserve critical 1000 memory free low-watermark processor 2000 username admin secret 5 \$1\$720u\$ep.dW.7w9aUAaGoX.YoE. secure boot-config					
26	Terminate hanged inbound TCP connection to device	Medium	False	False	Successful ✔️
<b>Right configuration setting found in:</b> service tcp-keepalives-in					
27	Terminate hanged outbound TCP connection to device	Medium	False	False	Successful ✔️
<b>Right configuration setting found in:</b> service tcp-keepalives-out					
28	Encrypt all saved passwords in configuration	Critical	False	False	Successful ✔️
<b>Right configuration setting found in:</b> no service password-encryption					